UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/554,458	10/24/2005	Masahiko Kadokura	NIHE-38852	9033

52054 7590 04/12/2010

PEARNE & GORDON LLP
1801 EAST 9TH STREET
SUITE 1200
CLEVELAND, OH 44114-3108

EXAMINER	
CATTUNGAL, SANJAY	

ART UNIT	PAPER NUMBER
3768	

NOTIFICATION DATE	DELIVERY MODE
04/12/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patdocket@pearne.com
dchervenak@pearne.com

Office Action Summary	Application No.	Applicant(s)	
	10/554,458	KADOKURA, MASAHIKO	
	Examiner	Art Unit	
	SANJAY CATTUNGAL	3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01/27/2010(RCE)*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date __.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/27/10 has been entered.

Response to Arguments

2. Applicant's arguments filed 05/20/2009 have been fully considered but are moot in view of new grounds of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1-3, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,569,100 to Okawa et al. in view of U. S. Patent No. 6,840,938 to Morley et al. further in view of U. S. Patent No. 5,938,551 to Warner.**

5. Regarding **Claims 1, 5, and 6,** Okawa teaches an ultrasonic probe for transmitting a rotation of a motor, which is placed inside a grip portion in order to swing an ultrasonic transducer placed inside a tip portion of a longitudinal insertion portion, to said ultrasonic transducer, including: a rotation shaft linked to a rotation shaft of said motor so that a tip is extended inside the tip portion of said insertion portion (Abstract; fig. 1a element 1, 5, 9, and 7 and col. 5 lines 55-60; a first pulley attached to said tip of said rotation shaft (fig. 1 element 9 and Col. 5 lines 55-60); a second pulley attached to a swinging shaft of said ultrasonic transducer (fig. 1a element 5 and Col. 5 lines 55-60); a idler roller (middle pulley) placed between said first and second pulleys (Fig. 2 element 21); and a belt laid between said first and second pulleys and said idler roller (middle pulley) (fig. 2 element 10).

6. Okawa does not expressly teach the use of a wire to engage the pulleys.

7. Morley teaches the use of cables to engage the pulleys (Fig. 4b).

8. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Okawa with a setup to use cables to engage the pulley as taught by Morley, since the use of cables/wires/belts with pulleys is known in the art as they are obvious variants of each other.

9. Okawa and Morley do not expressly teach the use of a pulley for tensioning and a sliding mechanism for supporting said middle pulley in such a manner that said middle pulley is slidable in a direction toward and away from said first pulley to protect looseness of the wire, and said middle pulley is not movable in a longitudinal direction of said longitudinal insertion portion.

10. Warner teaches the use of a pulley for tensioning and a sliding mechanism for supporting said middle pulley in such a manner that said middle pulley is slidable in a direction toward and away from said first pulley to protect looseness of the wire, and said middle pulley is not movable in a longitudinal direction of said longitudinal insertion portion (Figs. 3, 9, and 12 elements 94, 96, and 74).

11. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Okawa and Morley to use a pulley for tensioning and a sliding mechanism for the pulley such that pulley slides towards and away from first pulley but is not movable in longtitudinal direction as taught by Warner since such a setup would result in a more efficient tensioning of the cable, moreover use of pulley and idle rollers are known in the art as they are obvious variants of each other and achieve the same result of tensioning the cables.

12. Regarding **Claim 2**, Warner teaches a slider portion to which said middle pulley is attached and which can be slid in a direction orthogonal to a rotation direction of said first pulley along a slider guide portion formed at said tip portion (Figs. 3, 9, and 12 elements 94, 96, and 74); and a screw for fixing said slider portion to said tip portion (Figs. 3, 9, and 12 element 54).

13. Regarding **Claim 3**, Okawa teaches that the wire is made of line material having both ends and has a block for fixing both of thends of said line material, an said block is attached to first pulley (Fig. 5b element 9b and element 41).

14. **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,569,100 to Okawa et al. in view of U. S. Patent No. 6,840,938 to Morley**

et al. further in view of U. S. Patent No. 5,938,551 to Warner and further in view of U. S. Patent No. 6,709,397 to Taylor.

15. Regarding **Claim 4**, Okawa, Morley, and Warner teach all of the above claimed limitations but do not expressly teach that the wire is confined to the tip portion.

16. Taylor teaches that the wire is confined in the tip portion (Figs. 1, 2, and 8).

17. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Okawa, Morley, and Warner such that the wire confined to the tip portion as taught by Taylor, since such a setup would be beneficial for long cavital probes which are inserted into a cavity and need to be thin, as it would be more comfortable to the subject.

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SANJAY CATTUNGAL whose telephone number is (571)272-1306. The examiner can normally be reached on Monday-Friday 9-5.

19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571) 272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SANJAY CATTUNGAL/
Examiner, Art Unit 3768